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## (12) United States Patent

**Baggenstoss** 

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#### (54) TIME-SERIES SEGMENTATION

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### (57) ABSTRACT

A method for segmenting a signal into segments having similar spectral characteristics is provided. Initially the method generates a table of previous values from older signal values that contains a scoring value for the best segmentation of previous values and a segment length of the last previously identified segment. The method then receives a new sample of the signal and computes a new spectral characteristic function for the signal based on the received sample. A new scoring function is computed from the spectral characteristic function. Segments of the signal are recursively identified based on the newly computed scoring function and the table of previous values. The spectral characteristic function can be a selected one of an autocorrelation function and a discrete Fourier transform. An example is provided for segmenting a speech signal.

### 15 Claims, 2 Drawing Sheets

